

## **CLAIMS**

What is claimed is:

1. A biopsy aspiration device adapted to obtain a bone marrow sample comprising:  
an elongated cannula body having a proximal end, a distal tip and a linear longitudinal axis;  
a lumen running longitudinally through the interior of said cannula body, said lumen terminating at a proximal opening and terminating at a single laterally oriented distal opening immediately adjacent to the distal tip;  
wherein said distal tip of said cannula body comprises an arcuate curved surface originating on the opposite side to said laterally oriented distal opening, said arcuate curved surface terminating at the distal-most point of said distal opening.
2. The biopsy aspiration device according to claim 1 wherein said proximal end of said cannula body further comprises an attachment structure for removably coupling an aspiration source.
3. The biopsy aspiration device according to claim 2 wherein said attachment structure comprises a luer attachment.
4. The biopsy aspiration device according to claim 1 wherein the proximal end of the device comprises viewable indicia.

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5. The biopsy aspiration device according to claim 4 wherein said viewable indicia comprises a marking indicating the position of the laterally oriented distal opening.
6. A bone biopsy system comprising:
  - an outer cannula;
  - a handle portion coupled to the proximal end of said outer cannula;
  - wherein said outer cannula is adapted to removably accommodate therein a biopsy aspiration device, said biopsy aspiration device being adapted to obtain a bone marrow sample and comprising:
    - an elongated cannula body having a proximal end, a distal tip and a linear longitudinal axis;
    - a lumen running longitudinally through the interior of said cannula body, said lumen terminating at a proximal opening and terminating at a single laterally oriented distal opening immediately adjacent to the distal tip;
    - wherein said distal tip of said cannula body comprises an arcuate curved surface on the side opposite side to said laterally oriented distal opening, said arcuate curved surface terminating at said distal opening.
7. The bone biopsy system according to claim 6, wherein said proximal end of the cannula body of said biopsy aspiration device further comprises an attachment structure for removably coupling an aspiration source.

a lumen running longitudinally through the interior of said cannula body, said lumen terminating at a proximal opening and terminating at a single laterally oriented distal opening immediately adjacent to the distal tip; wherein said distal tip of said cannula body comprises an arcuate curved surface on the side opposite side to said laterally oriented distal opening, said arcuate curved surface terminating at said distal opening;

(d) attaching an aspiration source to the proximal end of said biopsy aspiration device; and

(e) withdrawing a sample of marrow from a marrow sampling site.

13. The method according to claim 12 further comprising the step of rotating said biopsy aspiration device within said outer cannula thereby repositioning the laterally oriented distal opening within the marrow sampling site.

14. The method according to claim 12 further comprising:

(f) removing the biopsy aspiration device from the outer cannula; and

(g) further advancing the outer cannula into the bone to obtain a core sample.

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8. The bone biopsy system according to claim 7 wherein said attachment structure of comprises a luer attachment.
9. The bone biopsy system according to claim 6 wherein the proximal end of said biopsy aspiration device comprises viewable indicia.
10. The bone biopsy system according to claim 9 wherein said viewable indicia comprises a marking indicating the position of the laterally oriented distal opening.
11. The bone biopsy system according to claim 6 further comprising a stylet adapted for removable insertion within said outer cannula.
12. A method of obtaining a bone marrow sample from a marrow sampling site in a patient comprising the steps of:
  - (a) penetrating the cortex of a bone with an outer cannula having a stylet positioned within, the distal portion of said stylet extending beyond the distal end of said outer cannula, until the distal end of said outer cannula is surrounded by marrow;
  - (b) removing said stylet from said outer cannula;
  - (c) inserting into said outer cannula a biopsy aspiration device such that the distal tip of said biopsy aspiration device is extended into marrow, said biopsy aspiration device comprising:  
an elongated cannula body having a proximal end, a distal tip, and a linear longitudinal axis;